COMMITTEE ON GOVERNMENT REFORM

***S**ubcommittee on **E**nergy and **R**esources*

***D**ARRELL **I**SSA**, C**HAIRMAN*

Oversight Hearing:

"Keeping the Fuel Flowing from the Gulf: Are We Prepared for the Hurricane Season?"

June 7, 2006, 2:00 p.m.

Room 2203 Rayburn Building

BRIEFING MEMORANDUM

SUMMARY:

In the aftermath of Hurricanes Katrina and Rita in 2005, oil and natural gas production from the Gulf of Mexico were "shut-in" or offline for months; pipelines and refineries were shut down; some retail gas stations ran short of fuel in other parts of the country due to delays and shortfalls in deliveries; and the prices for oil, refined products, and natural gas skyrocketed. Some areas of the country were within days of widespread supply shortages of refined products such as gasoline, aviation, and diesel fuel. It was only through great ingenuity and sacrifice by personnel from government and industry that significant shortages did not occur.

For the 2006 Atlantic hurricane season, the National Oceanic and Atmospheric Administration (NOAA) is predicting 13 to 16 named storms, with eight to 10 becoming hurricanes, of which four to six could become major hurricanes of Category 3 strength or higher. According to meteorologists at Colorado State University, there is an average 38 percent chance of the area from the Florida panhandle westward to Brownsville, Texas, being hit by a Category 3, 4, or 5 hurricane in 2006.

The Gulf of Mexico region is critical to the nation's economic growth because it is the backbone of our energy infrastructure. According to the Federal Reserve Bank of Dallas' Houston Branch, 26.4 percent of the nation's domestic crude oil production and 21.3 percent of natural gas production takes place in the Gulf of Mexico. Almost 40 percent of the nation's crude oil refining capacity is located on the Gulf Coast.

Clearly, the federal government and the petroleum and natural gas industries must apply crucial lessons learned from last year, and the private energy sector must be prepared to coordinate with the federal and local governments in times of crisis. With the current US average gasoline price already exceeding $2.90 per gallon, the implications of not meeting the 2006 preparedness challenge would be disastrous. This hearing will examine how industry and government are prepared to transport and deliver fuel supplies from the Gulf of Mexico to where they are needed this hurricane season.

BACKGROUND:

The Gulf of Mexico's Importance to the Nation

The Gulf of Mexico region is critical to the nation's economic growth because it is the backbone of US energy infrastructure. According to the Federal Reserve Bank of Dallas' Houston Branch, 26.4 percent of the nation's domestic crude oil production and 21.3 percent of natural gas production takes place in the Gulf of Mexico. Almost 40 percent of the nation's crude oil refining capacity is located on the Gulf Coast. The proportion of crude oil refined by the Texas and Louisiana Gulf Coast is larger than the share refined by the East Coast, West Coast, and Great Lakes regions combined. In terms of natural gas processing capacity, which removes impurities from natural gas and separates natural gas liquids used in petrochemical processing, the Gulf Coast accounts for 34.5 percent of US capacity.

Because so much production and processing capacity and infrastructure is located in the central and western Gulf region, which has a relatively small population, other regions of the country are dependent on the Gulf for essential fuels. Even those regions that do not receive much product from the region are affected greatly when production or delivery of fuels is interrupted from the Gulf region because of the interdependence of markets, particularly in petroleum products. A significant portion of the Gulf coast's petroleum products—gasoline, diesel, and jet fuel—is shipped to Eastern US markets through the Colonial and Plantation pipelines or transported to Midwest markets by pipeline or the Mississippi River. The mid-Atlantic and Southeastern US are particularly dependent on the Gulf for petroleum products, as demonstrated by the level of gasoline price increases in the immediate aftermath of Hurricane Katrina.

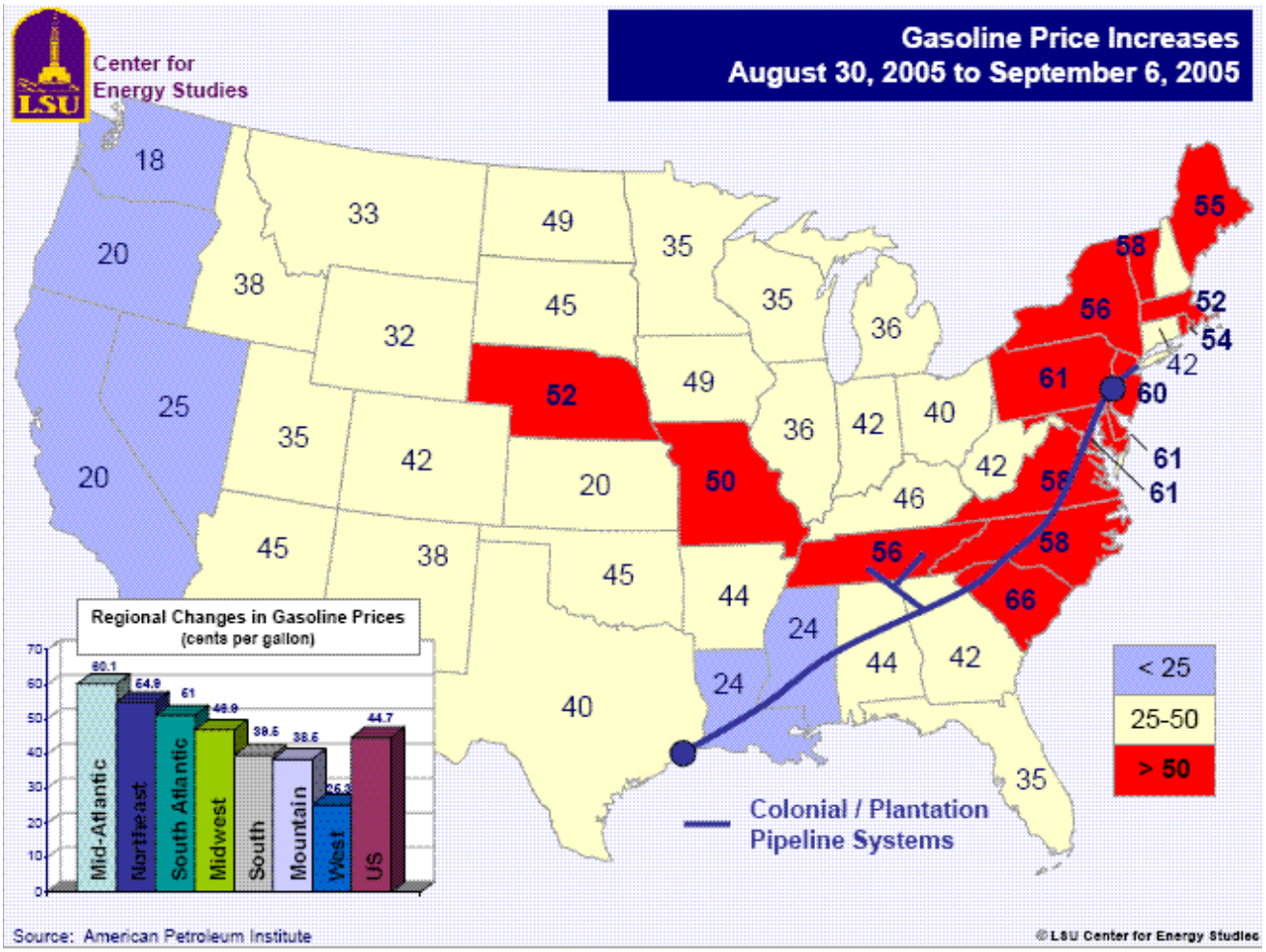
Hurricanes Katrina and Rita

According to data compiled by the American Petroleum Institute from the Department of Energy and the Department of Interior's Minerals Management Service (MMS) reports, the highest level of shut down production was 29 percent of US refining capacity as a result of Katrina and Rita. As of May 31, 2006, about 3.3 percent of U.S. refining capacity was not yet fully operational. Approximately 30 percent of oil production and 21 percent of natural gas production was shut-in by the hurricanes. As of May 31, 2006, less than 7 percent of oil production and less than 3 percent of natural gas production remained shut-in.

The magnitude of Hurricanes Katrina and Rita demonstrated that the whole supply chain for petroleum and natural gas products are at risk from tropical storms. Industry and government are well-practiced in dealing with offshore emergency measures for personnel and equipment involved in the production and transportation of fuels—in 2004 Hurricane Ivan demonstrated that underwater pipelines were vulnerable to storms to a degree that was not thought to be possible. However, Katrina and Rita affected offshore platforms and equipment beyond established parameters, and new standards and tolerances are being created by industry. Onshore, the hurricanes inundated refineries and gas processing units with water, obliterated communications systems, and interrupted the power supply that is essential to the pipelines that transport liquid fuels. Some areas were within hours of a

shortfall in the supply of critical fuels, and only determined efforts on the part of government and industry personnel prevented widespread shortages.

In the wake of Hurricane Katrina, loans of crude oil were offered from the Strategic Petroleum Reserve by the federal government. However, only about one-third of SPR crude that was offered was in fact loaned, because there was not enough undamaged refining capacity to process it. A key question entering this hurricane season is whether there are enough private inventories of refined fuels to be transported and delivered if refinery production is significantly curtailed or shut down again.[1] Much of the federal government's efforts to get energy production and facilities back online was in a coordinating role and in applying waivers to existing law and regulations. For example, waivers were made with the Department of Transportation for truck driver hours and the transport of huge generators for emergency pipeline power, with the Environmental Protection Agency for Clean Air Act suspensions for gasoline and diesel fuel, with the Department of Homeland Security and the Coast Guard for the Jones Act so that foreign tankers could be utilized, and the Federal Energy Regulatory Commission for utilities reporting requirements and emergency maintenance and repairs to transmission lines. This list is not exhaustive and does not account for state waivers and requirements, although the federal government was involved in these coordination activities as well.



[1] Since the early 1990s, industry has not kept high levels of reserves and utilizes what can be termed "just-in time" inventories for delivery.

The 2006 Hurricane Season

The lessons learned by government and industry from the hurricanes of the last few years are only now being applied. This is particularly important because the forecast for the current hurricane season is above average in terms of the number of tropical storms—NOAA anticipates there is an 80 percent chance activity will be above normal. For the 2006 Atlantic hurricane season (June 1 to November 30), NOAA predicts 13 to 16 named storms, with eight to 10 becoming hurricanes, of which four to six could become major hurricanes of Category 3 strength or higher. According to the early hurricane forecast of Dr. William Gray of Colorado State University, there will be 17 named storms, and 9 hurricanes of which 5 are a category 3 or higher. According to Gray and a coauthor, there is an average 38 percent chance of the area from the Florida panhandle westward to Brownsville, Texas, being hit by a Category 3, 4, or 5 hurricane in 2006.

ISSUES TO BE ADDRESSED AT THE HEARING:

- Are the government and the energy industry prepared to meet the fuel supply challenges of the 2006 hurricane season?
- What is the status of fuel production and inventories entering the summer and hurricane seasons?
- What are the lessons learned from the hurricanes of 2005, and how have they been incorporated into planning and best practices for 2006?
- How are the federal government and private industry coordinating with each other, as well as with state and local governments?
- Besides actions taken for the current hurricane season, what measures are government and industry taking to address preparedness for the long-term?

Witnesses:

Panel 1

General David L. Johnson, Director, National Weather Service, NOAA

Mr. Guy Caruso, Administrator, Energy Information Administration

Admiral Thomas Barrett, Administrator, Pipeline & Hazardous Materials Safety Administration, Department of Transportation

Panel 2

Mr. Robert Greco, Group Director of Upstream and Industry Operations, American Petroleum Institute

Mr. Tyson Slocum, Energy Program Research Director, Public Citizen

Staff Contact:
Larry Brady, Staff Director
Subcommittee on Energy and Resources
B-349C Rayburn House Office Building
202.225.6427 / 202.225.2392 fax